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NOTES ON THE OSBORN MALLOPHAGA TYPES

BY K. C. EMERSON
Stillwater, Oklahoma

For more than ten years, I have conducted an extensive search for the type material of the Mallophaga species described by Herbert Osborn. All possible clues as to the location of this material, given in his published papers, have been explored. Of the forty-one species described by Osborn, the holotype or syntypes for thirty-four species have been located.

Some syntypes are known to be at Stanford University, and are not reported in this paper. When visiting with the late G. F. Ferris in January 1941, I examined syntypes of *Colpocephalum kelloggi* Osborn. Since the death of Ferris, the Mallophaga Collection at Stanford University has not been placed in proper order so that it is possible to determine if other Osborn type material is present. I suspect that if there is other Osborn type material in that collection, it will be a portion of some of the larger series, and not be type material of the seven species still unaccounted for. Osborn apparently distributed to Kellogg, at Stanford University, and to the U. S. National Museum duplicates from the larger series that he collected. For the smaller series, he either retained the material in his collection, or returned it to the individuals and institutions mentioned in his papers. Therefore, it is believed that types for seven species are no longer in existence.

In the designation of lectotypes, first preference has been given to the material at Ohio State University, since this was Osborn's Collection. The slides in the Ohio State University Collection have small "type" or "cotype" labels which apparently were added sometime after the descriptions were published, as they do not correspond to published data and are not present on the slides in other collections. Most of the ma-



terial from the Boston Society of Natural History is now in the Museum of Comparative Zoology. Some of the material provided by L. Bruner is now in the collection of M. A. Carriker. None of the material supplied by C. F. Baker is now at Colorado State University. The material originally from Iowa State University and Cornell University, which is unaccounted for, is assumed to be lost. Museum authorities at these two institutions have been unable to locate the specimens.

All hosts have been verified by comparison with known collections, and except as noted are correct as given in the original description.

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Colpocephalum kelloggi Osborn. 1902. *Ohio Naturalist*, 2: 175, pl. II, Fig. 2.

Osborn recorded the type series from Ames, Iowa, and Lincoln, Nebraska; and illustrated a female in the description. Ohio State University has two slides from Lincoln, Nebraska, which have a total of seven males, fourteen females and five nymphs; and from Ames, Iowa, there are three slides with a total of five males, five females and ten nymphs. The female on a slide with four nymphs from Ames, Iowa, dated 21 April 1890 is designated Lectotype.

Present status: *Colpocephalum kelloggi* Osborn, 1902.

Colpocephalum pectinatus Osborn. 1902. *Ohio Naturalist*, 2: 201, pl. 14, Fig. 2.

Osborn did not record the number of specimens in the type series. He illustrated a female. Ohio State University has five females and eight nymphs. The female located in the lower right portion of the slide is designated Lectotype.

Present status: *Kurodaia pectinata* (Osborn, 1902).

Docophorus agelaii Osborn. 1896. *Bull. U. S. Bur. Ent. (n.s.)*, 5: 220.

Osborn did not record the number of specimens in the type series. Ohio State University has one male, three females and three nymphs. The male in the Ohio State University Collection is designated Lecto-

type. M. A. Carriker has one male. The Museum of Comparative Zoology has slide number 194 with one nymph; and slide number 195 with one male, one female, and one nymph.

Present status: *Philopterus agelaii* (Osborn, 1896).

Docophorus barbatus Osborn. 1902. Ohio Naturalist, 2: 201, pl. 14, Fig. 1.

Osborn did not record the number of specimens in the type series. He illustrated a female. Emerson (1955) noted that the true host is *Asio otus wilsonianus* (Lesson). Ohio State University has two slides. One slide with four males, four females and two nymphs. The other slide has two males, two females and one nymph. The female located in the upper right portion of the latter mentioned slide is designated Lectotype.

Present status: *Strigiphilus barbatus* (Osborn, 1902).

Docophorus bubonis Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 219.

Ohio State University has a slide with one male and one female, which are the two specimens recorded by Osborn. The male is designated Lectotype. Two species of *Strigiphilus* are found on *Bubo virginianus* (Gmelin). Osborn's types are conspecific with *S. oculus* (Rudow, 1870), therefore the form with the narrow forehead found on this host has not been described. Carriker (1958) designated specimens as "neoparatypes" of *S. oculus* (Rudow, 1870). Since he did not establish a neotype, his action is not valid.

Present status: A synonym of *Strigiphilus oculus* (Rudow, 1870).

Docophorus coccygi Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 222, Fig. 143.

Osborn did not record the number of specimens in the type series. A female was illustrated. Ohio State University has one slide with two males, two females, and one nymph with collection date of 30 May 1890. The female located in the bottom center of the slide is designated Lectotype. M. A. Carriker has two males with collection date of 29 May 1890.

Present status: *Cuculoecus coccygii* (Osborn, 1896).

Docophorus corvi Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 220, Fig. 142. (not Linnaeus, 1758).

Philopterus osborni Edwards. 1952. Psyche, 59: 27. (Nomen novum).

Osborn did not record the number of specimens in the type series. A female was illustrated. The Museum of Comparative Zoology has slide number 27344(242) with one female and two nymphs, slide number 27344(243) with one male and one nymph, and slide number 27344(248) with three females. The female on slide number 27344(242) is designated Lectotype. Ohio State University has one male with collection data "Crow, Ft. Collins, Colorado, Monroe Co., Ind., 7-12-92, R. M. Harve, 35, C. F. B." Even though this slide bears a "type" label, it is not a syntype because there is no reference to it in the original description.

Present status: *Philopterus ocellatus osborni* Edwards, 1952.

Docophorus fusco-ventralis Osborn. 1896. Bull. U. S. Ent. (n.s.), 5: 221.

Osborn did not record the number of specimens in the type series. The Museum of Comparative Zoology has slide number 27342(244) with two males, one female, and one nymph. The female on slide number 27342(244) is designated Lectotype. The Museum of Comparative Zoology also has slide number 27342(250) with two males, two females and two nymphs from "*Tyrannus (Muscicapa) atra*" which are not conspecific with the lectotype and bear collection data not mentioned in the description. Therefore, the specimens on slide number 27342(250) are not syntypes despite the fact that the slide is labeled "type."

Present status: *Phlopterus fuscoventralis* (Osborn, 1896).

Docophorus halioti Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 218.

Osborn did not record the number of specimens in the type series. Ohio State University has a slide with two females and one male. The male is designated Lectotype.

Present status: *Craspedorrhynchus halioti* (Osborn, 1896).

Docophorus minuto-trabeculatus Osborn. 1896. Bull. U. S. Bur. Ent., 5: 221.

The type material for this species could not be located. Hopkins and Clay (1952) consider it to be a synonym of *Rallicola advenus* (Kellogg, 1896).

Docophorus phaëtonus Osborn. 1890. In Howard, Proc. U. S. Nat. Museum, 12: 189.

The type material for this species could not be located. Hopkins and Clay (1952) consider the present status of this species to be *Saemundsonia phaëtona* (Osborn, 1890).

Docophorus quisicali Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 219, Fig. 141.

Osborn did not record the number of specimens in the type series. A female was illustrated. Ohio State University has a slide with one female and one nymph. The female is designated Lectotype.

Present status: *Phlopterus quisicali* (Osborn, 1896).

Docophorus sialii Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 220.

Osborn did not record the number of specimens in the type series. Ohio State University has a slide with one male, two females, and four nymphs. The male is designated Lectotype. This slide bears a collection date of 21 March 1874.

Present status: *Phlopterus sialii* (Osborn, 1896).

Docophorus speotyti Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 222, Fig. 144.

Osborn recorded one male and one female from Lincoln, Nebraska, and two males and two females from Fort Collins, Colorado. He illus-

trated a female. M. A. Carriker has one female collected at Lincoln, Nebraska, 17 April 1890 which is designated Lectotype. Ohio State University has one male from Lincoln, Nebraska, collected on 16 April 1890. In addition, Ohio State University has four females with collection data "Burrowing Owl, Ft. Collins, Colo., 4-13-92, C. F. Baker Coll., CFB. 25." Either Osborn made a mistake in recording the sex of these specimens, or they are not syntypes. For that reason, the female in Carriker's Collection is designated Lectotype.

Present status: *Strigiphilus speotyti* (Osborn, 1896).

Lipeurus botauri Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 234.

Osborn did not record the number of specimens in the type series. Ohio State University has one female collected at Ames, Iowa. This specimen is considered the Holotype.

Present status: *Ardeicola botauri* (Osborn, 1896).

Lipeurus infuscatus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 234, pl. II, Figs. e and f.

Osborn recorded four specimens, all of which are in the Museum of Comparative Zoology. Edwards (1952) discussed this material and designated the male on slide number 27343(334) as Lectotype.

Present status: *Rhynonirmus infuscatus* (Osborn, 1896).

Lipeurus marginalis Osborn. 1902. Ohio Naturalist, 2: 176.

Osborn recorded two females from Ames, Iowa. Ohio State University has a slide with two nymphs, which obviously would have been females upon reaching maturity. The specimen located on the bottom portion of the slide is designated Lectotype.

Present status: *Falcolipeurus marginalis* (Osborn, 1902).

Menopon alternatum Osborn. 1902. Ohio Naturalist, 2: 175, pl. II, Fig. 1.

Osborn recorded the type series as being from Ames, Iowa, and Lincoln, Nebraska; but did not note the number of specimens. He illustrated a male. Ohio State University has a slide with one male, one female, and one nymph collected at Lincoln, Nebraska, 23 June 1891. The male on this slide is designated Lectotype.

Present status: *Cuculiphilus alternatus* (Osborn, 1902).

Menopon expansum Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 245, pl. II, Fig. j.

Osborn recorded and illustrated a female on slide number 67. This specimen, on slide number 67, is in the Museum of Comparative Zoology. Although the host is given in the original description and on the slide as *Dolichonyx eryzivorus*, the specimen is not a species found on passerine hosts but is an *Austromenopon* and agrees perfectly with specimens of *A. aegialitidis* (Durrant, 1906) from *Charadrius vociferus* Linnaeus.

The draft International Rules of Zoological Nomenclature passed by

the 15th Int. Congress Zool. contains provision that a senior synonym which has been unused in the primary zoological literature for more than 50 years shall be considered a *nomen oblitum* and shall not be used to replace its junior synonym until after reference to the Commission, who will either place it on the Index of Rejected Names or on the Official List. *Menopon expansum*, having been unused for 64 years, comes under this provision and must not be used in place of *Austromenopon aegialitidis* (Durrant, 1906) in use for 54 years.

Menopon fusco-marginatus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 245.

Osborn did not record the number of specimens in the type series. The Museum of Comparative Zoology has slide number 258 with one male, one female, and one nymph; slide number 264 with one male, and two females; and slide number 265 with one male and three nymphs. The male on slide number 264 is designated Lectotype.

Present status: *Myrsidea fuscomarginata* (Osborn, 1896).

Menopon interruptus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 245, pl. II, fig. h.

Osborn did not record the number of specimens in the type series. A male was illustrated. The Museum of Comparative Zoology has slide number 45 with one male; slide number 51 with one male, one female, and one nymph; slide number 142 with one male, one female, and one nymph; slide number 249 with three nymphs; slide number 257 with one male and two females; slide number 259 with one male, one female, and one nymph; slide number 260 with two males and one female; and slide number 261 with one male and two nymphs. The male on slide number 259 is designated Lectotype.

Present status: *Myrsidea interrupta* (Osborn, 1896).

Nirmus abruptus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 229, pl. II, Fig. c.

Osborn recorded one adult and one nymph, and illustrated a female. The Museum of Comparative Zoology has slide number 27338(307) with one female and one nymph. Host data on the slide is "*Perdix americana*." The female is designated Lectotype. Hopkins and Clay (1952) correctly noted that these specimens are stragglers from some member of Icteridae.

Present status: *Briëlia abrupta* (Osborn, 1896).

Nurmus cordatus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 228, pl. II, Fig. a.

The Museum of Comparative Zoology has slide number 27336(329), with one female and one nymph, as recorded by Osborn. Edwards (1952) has discussed and illustrated this material. The female is designated Lectotype.

Present status: *Rotundiceps cordatus* (Osborn, 1896).

Nirmus marginatus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 228, pl. II, Fig. b. (not Burmeister, 1838).

Degeeriella marginatulus Harrison. 1916. Parasitology, 9: 117. (Nomen novum).

Osborn did not record the number of specimens in the type series. A female was illustrated. The Museum of Comparative Zoology has slide number 27339(326) with three females. The female located on the right side of the slide is designated Lectotype.

Present status: *Picicola marginatulus* (Harrison, 1916).

Nirmus ornatisissimus var. *xanthocephali* Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 224.

The type material for this species could not be located. Hopkins and Clay (1952) consider the present status of this species to be *Brüelia xanthocephali* (Osborn, 1896).

Nirmus orpheus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 227.

Osborn recorded two males which are on the Museum of Comparative Zoology slide number 27340(312). The host listed on the slide is "*Orpheus carolinensis*." The male located on the top portion of the slide is designated Lectotype.

Present status: *Picicola orpheus* (Osborn, 1896).

Nirmus pallidus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 227. (not Piaget, 1880).

Degeeriella pallidula Harrison. 1916. Parasitology, 9: 120. (Nomen novum).

Ohio State University has a slide with four nymphs which were recorded by Osborn. These specimens are too young for specific determination beyond the fact that they belong to the genus *Brüelia*.

Present status: *Brüelia pallidula* (Harrison, 1916).

Nirmus parallelus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 229, pl. II, Fig. d.

Osborn did not record the number of specimens in the type series. A male was illustrated. The Museum of Comparative Zoology has slide number 27336(323) with three females; slide number 317 with one male and three females; and slide number 318 with three females. The male on slide number 317 is designated Lectotype.

Present status: A synonym of *Quadriceps hiaticulae boephilus* (Kellogg, 1896).

Nirmus picturatus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 226.

The type material for this species could not be located. Hopkins and Clay (1952) consider the present status of this species to be *Brüelia picturata* (Osborn, 1896).

Nirmus rotundatus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 226.

Osborn recorded only one specimen, which could not be located.

Ansari (1957) considers the present status of this species to be *Brüelia rotundata* (Osborn, 1896).

Nirmus secundarius Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 227.

The type material for this species could not be located. Clay (1958) stated "It is not possible to assign this species with certainty to the *Degeeriella*; if the types are no longer in existence the name should be discarded as a nomen dubium."

Nirmus tyrannus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 228.

Osborn recorded two females in the type series. The Museum of Comparative Zoology has slide number 27341(313) with two females. The female on the top portion of the slide is designated Lectotype. These specimens are stragglers from *Chordeiles minor* (Forster) and are conspecific with material from that host.

Present status: A synonym of *Mulcticola macrocephalus* (Kellogg, 1896).

Physostomum hastatum Osborn. 1896. Ohio Naturalist, 2: 203, pl. 14, Fig. 3.

Osborn recorded two females from *Junco hyemalis oregonus* which could not be located. He also recorded one female from *Junco aikeni*, which is on a slide at Ohio State University; and which is herewith designated Lectotype.

Present status: *Ricinus hastatus* (Osborn, 1902).

Physostomum lineatum Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 248.

Osborn recorded three specimens, none of which could be located. Hopkins and Clay (1952) consider the present status of this species to be *Ricinus lineatus* (Osborn, 1896).

Trichodectes castoris Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 241, Figs. 149a-d.

Osborn did not record the number of specimens in the type series. Both sexes were illustrated. The University of Nebraska has five females, three males, and two nymphs. The United States National Museum has seven females and seven males. Ohio State University has three males, two females and three nymphs; the male located on the left center portion of this slide is designated Lectotype. All slides bear the additional data "Lincoln, Nebr., Nov. 17, 1890." These specimens are stragglers from *Mephitis mephitis hudsonica* Richardson and are conspecific with material from that host.

Present status: A synonym of *Neotrichodectes mephitidis* (Packard, 1873).

Trichodectes geomydis Osborn. 1896. Bull. U. S. Bur. Ent., 7: 54, Fig. 42.

Osborn did not record the number of specimens in the type series. A

male was illustrated. Ohio State University has one slide with four females and two males. The male in the lower right position on the slide is designated Lectotype.

Present status: *Geomydoecus geomydis* (Osborn, 1896).

Trichodectes mephitidis Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 242, Figs. 150a-f. (not Packard, 1870).

Neotrichodectes osborni Keler. 1944. Stettin. ent. Ztg., 105: 182. (Nomen novum).

Osborn recorded type material from three collections. The series from "Polecat, Spilogale interrupta, Tama County, Iowa" was described and illustrated. Since this form is not conspecific with *T. mephitidis* Packard, 1870, Keler (1944) published *Neotrichodectes osborni* as a nomen novum; thereby restricting the name to the form found on this host. The series has not been located, so the designation of a Lectotype cannot be accomplished at this time.

Osborn also recorded type material from "Mephitis mephitica, Holt Co., Nebraska," which has been located as follows: University of Nebraska—nine females, two males, and thirty-two nymphs; and Ohio State University—one male, one female, and six nymphs. He also recorded specimens from *Mephitis mephitica* from "Palo Alto, California, Johnson Collection." Iowa State University has six males, sixteen females and one nymph with collection data "Meph. meph., Palo Alto, Calif., June 26, 1893, W. G. J." which are probably this series. All specimens from "Mephitis mephitica" are conspecific with *Neotrichodectes mephitidis* (Packard, 1870).

Trichodectes nasuatis Osborn. 1896. Ohio Naturalist, 2: 178, pl. II, Fig. 3.

Osborn recorded three females and one nymph, which are on a slide at Ohio State University. The female located on the upper left portion of the slide is designated Lectotype.

Present status: A synonym of *Neotrichodectes pallidus* (Piaget, 1880).

Trichodectes parallelus Osborn. 1896. Bull. U. S. Bur. Ent. (n.s.), 5: 240, Fig. 148.

Osborn recorded three females received from J. H. Comstock of Cornell University. Ohio State University has a slide with three teneral females. The collection data on the slide are "Deer, Ithaca, N. Y., 12 Aug. 86, L. Pearson, Coll., From Cornell Univ." The uppermost specimen, also in the center, is designated Lectotype. The types of *Trichodectes odoecoilei* McGregor have been examined, and are conspecific with these specimens. The specimens that Peters (1930) referred to as *T. parallelus* Osborn are probably those that Osborn identified and illustrated as *Trichodectes tibialis* (Bull. U. S. Bur. Ent. (n.s.), 5: 240, Fig. 147) since that series contained both males and females.

Present status: *Tricholipeurus parallelus* (Osborn, 1896).

Trichodectes thoracicus Osborn. 1902. *Ohio Naturalist*, 2: 178, pl. II, Fig. 4.

Osborn did not record the number of type specimens. A female was illustrated. Ohio State University has one slide with two males, three females, and two nymphs. The female located in the top center portion of the slide is designated Lectotype; the collection data are "Mar. 3, Lake Co., Calif. W. G. Johnson." Iowa State University has eight males, fifteen females and seven nymphs on three slides with collection data "Bassaris, Ringtail or Raccoon Fox, Lake Port, Lake Co., Calif., 4 Mch 93, W. G. Johnson."

Present status: *Neotrichodectes thoracicus* (Osborn, 1902).

Trinoton minor Osborn. 1896. *Bull. U. S. Bur. Ent.* (n.s.), 5: 248.

Osborn recorded a female on slide number 102, which is in the Museum of Comparative Zoology. The specimen is a nymph, and not a female. It is in such poor condition that a satisfactory comparison could not be made with specimens from *Oidema nigra*, the type host.

Present status: *Trinoton minor* Osborn, 1896.

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